

March 5, 2003

TO: Internal File

FROM: Gregg A. Galecki, Sr. Reclamation Specialist, Hydrogeologist – Team Lead

RE: Penta Creek Fee Lease, West Ridge Resources, Inc., West Ridge Mine,
C/007/041–IB03B

SUMMARY:

On February 7, 2003, the Utah Division of Oil, Gas, & Mining (Division) received an application from West Ridge Resources, Inc. (Operator) to amend their current Mine and Reclamation Plan (MRP) to increase the size of the permit area by 74.92-acres. The proposed addition of 74.92-acres to the current mine plan is considered an Incidental Boundary Change (IBC). The amendment is considered an IBC because 1) it does not increase the size of the surface or subsurface disturbed area by more than 15 percent; 2) it does not engage in operations outside the Cumulative Hydrologic Impact Area (CHIA); and 3) it does not engage in operations in hydrologic basins other than those authorized in the currently approved permit.

The following review is from the geologic and hydrologic perspectives only, and addresses only the portions of the regulations germane to the proposed amendment. Minimal review is necessary. The area is located on the periphery of the permit area, is beneath in excess of 2000-ft of cover, and at the top of a ridge with only one (1) small spring in the area. No text changes have been included in the amendment within the geologic and hydrologic sections. Map modifications primarily include only an extension of the permit boundary to include the proposed 74.92-acre addition. The information provided adequately addresses the minimum requirements of the regulations. Approval of the amendment is recommended.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

Analysis:

Maps 6-1, 6-2, and 6-3 (the Regional geology, Coal seam structure, and Lower Sunnyside coal seam isopach maps, respectively) have been modified to include the proposed 74.92-acre addition by extending the permit boundary. The proposed addition is located in the southeast portion of the current permit area and is contiguous Federal leases SL-068754 and UTU-78562.

The initial mine plan had always anticipated mine development in the proposed 74.92-acre extension however, did not acquire the fee land until recently. The only modification to the maps was to include the 74.92-acre addition in the permit boundary.

Findings:

Information provided adequately addresses the minimum requirements of the Geologic Resources Information section of the regulations.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Information within the currently approved plan adequately addresses the addition of the proposed 74.92-acre IBC, with the exception of modifying the permit boundary on all associated maps, which is included in this amendment.

Findings:

Information provided adequately addresses the minimum requirement of the Hydrologic Resource Information section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

The proposed addition of the 74.92-acre IBC required a modification to all maps within the currently approved MRP that illustrated the permit boundary. Maps that required a boundary modification include: Map 1-1, Mine Location; 2-1, Regional Soil; 3-1, General Vegetation Communities; Wildlife 3-4a through 3-4d; 4-1, Existing Land-use; 4-2, Archeology; 5-2, Surface Ownership; 5-3, Subsurface Ownership; 5-4A and 4B Mining Projections; 5-7, Subsidence Mitigation; 6-1 through 6-3 Geology; 7-3, Water Rights; 7-5, Seep/Spring Survey; 7-6 Hydrologic Monitoring (Historical Monitoring Locations); and 7-7 Operational Monitoring Location maps.

Coal Resource and Geologic Information Maps

The Coal Resource and Geologic information maps required only a modification of the permit boundary. The 74.92-acre IBC is contingent with two currently permitted federal leases, and the original mine plan indicated the IBC area would eventually be acquired.

Existing Structures and Facilities Maps

No changes to existing structures or facilities are proposed with the IBC.

Mine Workings Maps

No modifications to the Mine Workings map were necessary, with the exception of the new permit boundary. The original mine plan indicated the IBC area would be acquired.

No other map changes were required with the addition of the IBC.

Findings:

Information provided adequately addresses the minimum requirements of the Maps, Plans, and Cross Sections of Environmental Resources Information section of the regulations.

TECHNICAL MEMO

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

The 74.92-acre IBC has little to no effect on the submittal of required hydrologic information. The original mine plan anticipated to conduct mining in the area and addressed any hydrologic concerns in the currently approved plan.

Surface water Monitoring

No surface-water monitoring sites are affected by the IBC, and no additional sites are required through the Division review.

Groundwater Monitoring

Groundwater monitoring site Spring WR-1 is located immediately southeast of the IBC area. The Division database indicates Spring WR-1 has been monitored since June 1999. Flows range from 0.1 gpm (11/02) to 3.8 gpm (8/01) and average 1.97 gpm. Additional monitoring information from 1986 through 1992 indicated average flow at 1.82 gpm, with the spring being dry once (08/92). Water Right 91 4948 is associated with the spring and it is owned by Sunnyside Coal Company (filed in 1993). The water right lists the flow as .009 cfs (4 gpm) and its use is listed as stockwatering. WR-1 is located along strike, and the source area for the spring is up-dip of the mining activity; so affects to the spring are unlikely.

No other hydrologic regulations are affected by the proposed IBC, and are not addressed in this technical analysis.

Findings:

Information provided adequately addresses the minimum requirements of the Operation Plan – Hydrologic Information section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

All the maps within the currently approved MRP illustrating the permit boundary needed to be modified to include the 74.92-acre IBC. The majority of maps illustrating operations activities needed no modification because mining activities within the IBC area were included in the original mine plan. No modifications to the 'Mining Facilities Maps', 'Mine Workings Maps' or 'Monitoring and Sampling Location Maps' were necessary due to the addition of the 74.92-acre IBC.

Findings:

Information provided adequately addresses the minimum requirements of the Operation Plan – Maps, Plans, and Cross Sections of Mining Operations section of the regulations.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

The 74.92-acre IBC will require no effective change to the Reclamation Plan. The post-mining land uses will remain the same, and the 'Maps, Plans, and Cross Sections of Reclamation Operations' will remain unchanged. The only exception is the 'Affected Boundary Area Map' that will illustrate the IBC. There is no associated new surface disturbance, and any reclamation necessary due to subsidence is already covered in the current plan.

Findings:

Information provided adequately addresses the minimum requirements of the Reclamation Plan – General Requirements section of the regulations.

TECHNICAL MEMO

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

Analysis:

The addition of the 74.92-acre IBC will have little or no impact to the Cumulative Hydrologic regime. Actual mining activity will only occur in the approximate northern 1/3 of the 74.92-acres, and the activity will occur beneath 2,000-ft of cover, which will further reduce any potential for impacts. The only potential for local impacts is to Spring WR-1 with associated Water Right 91-91-4948 that claims right to approximately 4 gpm of flow. No impacts to the spring are anticipated.

Findings:

The information provided adequately addresses the minimum requirements of the Cumulative Hydrologic Impact Assessment section of the regulations.

RECOMMENDATIONS:

Approval of the 74.92-acre IBC to amend the currently approved MRP is recommended.